

ABSTRACT OF THE DISCLOSURE

The inventions of the present disclosure are directed to processes designed to recover water used in certain aspects of the processing of poultry, treat the recovered water to remove solids, fats, oils and greases, animal proteins and pathogenic organisms and to reuse the treated water for poultry processing operations. The processes described herein reduce bacteria and microorganisms associated with the poultry and reuse water. The present disclosure can be employed with an approach that includes unexpected positive results of reacting ozone and chlorine with water being treated for reuse to generate hypochlorous acid and/or other effective biocides. Ozone reacts with fats, oils, and greases, dissolved in the reuse water, to produce specific surface-active agents and surfactants which reduce the surface tension of the water which it is dissolved. The combination of these surface-active agents and surfactants and the biocides cause an extraordinary release and destruction of bacteria from the poultry carcass as well as the reuse water.